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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,135	02/04/2004	Arthit Sitiso	MICRON-43919	5088

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EXAMINER

HOFFMAN, MARY C

ART UNIT PAPER NUMBER

3733

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/773,135		SITISO ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Mary Hoffman		3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/04/2004</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: ref. #64. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-16, 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Biedermann et al. (U.S. Patent No. 5,961,517).

Biedermann et al. disclose various embodiments of a pedicle screw assembly comprising a pedicle screw having a head portion (FIG. 20, ref. #103) and a threaded shaft portion (FIG. 20, ref. #102) extending from the head portion, and a body (FIG. 19,

ref. #104) having an aperture (FIG. 19, ref. #105), a rod passageway (FIG. 19, ref. #107), and oppositely threaded internal and external threads (col. 2, lines 23-45). The set screw has exterior threads (FIG. 10, ref. #10) for engaging the internal threads of the body and a nut having internal threads (FIG. 10, ref. #11) for engaging the external threads of the body (col. 2, lines 23-45). The head portion of the pedicle screw includes a rounded head, and the head and base form a spherical joint. A compression washer (FIG. 20, ref. #111) is disposed in the base for retaining the head of the pedicle screw within the base. The compression washer is press-fit within the base and includes a concave facet disposed above the head of the pedicle screw. The threaded portion of the pedicle screw is tapered. The assembly of pedicle screw includes a drive slot formed in the head portion. The rod passageway and the pedicle screw aperture of the body are transverse to one another. A rod (FIG. 20, ref. #9) extends through the rod passageway. The set screw is capable of traveling within the body and contacting the rod, securing it in place within the body. The set screw includes a drive slot therein for tightening by a driver device. The assembly of nut has a polygonal outer configuration. The set screw and nut are fastened in opposite directions. Biedermann et al further disclose a spinal fixation system comprising a plurality of pedicle screw assemblies, and a rod extending between the pedicle screw assemblies (col. 3, lines 18-45). The system pedicle screw includes a drive slot formed in the head portion.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biedermann et al. (U.S. Patent No. 5,961,517) in view of Halm et al. (U.S. Patent No. 5,738,685).

Biedermann et al. disclose the claimed invention except for a major diameter of the threaded portion being generally constant, and a minor diameter of the threaded portion being tapered.

Halm et al. disclose a bone screw having a major diameter of the threaded portion being generally constant, and a minor diameter of the threaded portion being tapered to obtain a clamping effect by means of which the bone screw is additionally held in the bone.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the bone screw of Biedermann et al. in view of Halm et al. in order to obtain additional means of holding the bone screw in the bone.

***Allowable Subject Matter***

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Hoffman whose telephone number is 571-272-5566. The examiner can normally be reached on Monday-Friday 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo C. Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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